NOAA REPORT

Vol. VI, No. 11 November 1997

Mehuron Named Acting DUS: Dr. William O. Mehuron has been appointed acting NOAA deputy under secretary, replacing Diana Josephson, who left the position in September. Mehuron will serve until a permanent replacement is named.

"We are delighted that Dr. Mehuron agreed to take on this temporary assignment. His experience in major system acquisitions is a critical aspect of the position," Baker said.

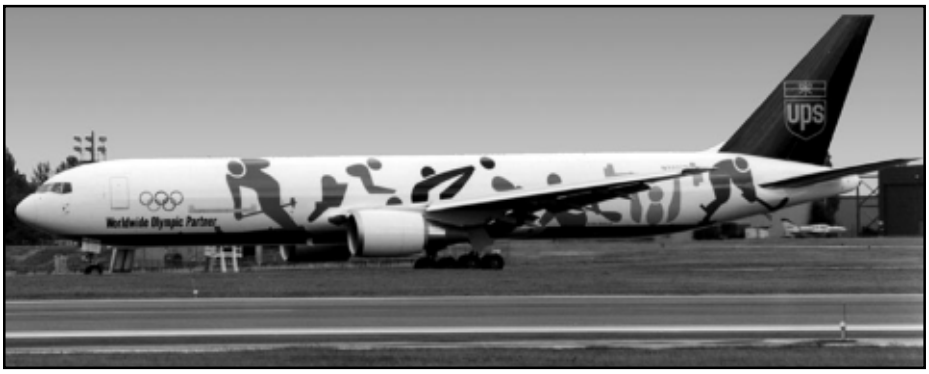
Mehuron joined NOAA in 1995 as the director of the Systems Acquisition Office. He has been responsible for the development and acquisition of environmental satellites, weather radar, sensor systems, ships and aircraft.

News Briefs

Chicago Meeting Provides Forum for Great Lakes Constituents: NOAA held its third regional constituent meeting last month in Chicago, as part of its goal to listen to NOAA's constituents.

Each of NOAA's line and program offices participate in these events, which have been extremely successful in creating opportunities for bringing together individuals with different experiences and perspectives to create solutions to complex problems, to plan for future cooperation, and to identify issues of common interest.

NOAA officials intend to develop an action plan to implement the recommendations that resulted from the meeting and workshops.



UPS air cargo planes like this one will be equipped with weather probes to relay water vapor data to NOAA scientists in Boulder, Colo.

UPS Delivers Weather Data for Boulder Laboratories

United Parcel Service cargo planes will soon be delivering more than just packages—they'll be delivering weather data to NOAA scientists.

Weather probes will be mounted on UPS aircraft to collect important water vapor data that will help improve aviation forecasting and weather and climate modeling.

Currently, water vapor measurements are taken every 12 hours by weather balloons from the National Weather Service. This is not frequent enough to catch the rapid changes in winds, temperature and water vapor that can occur in a 12-hour period.

Because balloons are launched at about 70 sites around the United States, the

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NWS Report Leads to Action

WILLIAM DALEY

The budget realities of the day demand that all of us in government be held to the highest possible standard of managerial competence. The taxpayers demand nothing less than the delivery of effective services at the lowest possible cost.

For an agency like the National Weather Service—whose work can be a matter of life and death for American families and communities, whose forecasts are essential to economic growth—sound management must be a top priority.

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Daley: NWS Management Reforms Will Improve Service

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When I became Secretary of Commerce, I pledged that cost-effective management of the entire department would be at the top of my agenda. I made a commitment to accountability and productivity—managing resources in a way that gives the American people the highest return on their investment.

Strong management demands an aggressive, hands-on approach—identifying problems and moving quickly to solve them. That's what I've sought to do here.

Last June, in response to inconsistent and unreliable information I was receiving about modernization and restructuring at the National Weather Service, I announced a series of actions.

I asked General Jack Kelly to conduct a detailed evaluation of the National Weather Service budget and operations, and I delayed the closing of the Southern Regional Headquarters until that evaluation was completed.

As a former director of the U.S. Air Force weather service with more than thirty years experience in this field, General Kelly was uniquely qualified to lead this review.

General Kelly has provided a thorough and rigorous analysis of the problems at the Weather Service. After reviewing his report, I have decided to take the following actions:

- I will direct the National Weather Service to implement a series of management reforms designed to improve services and reduce costs. We are currently in the final stages of recruiting a new director for the Weather Service, for whom these reforms will be the highest priority.
- I will terminate plans to close the Southern Regional Headquarters. The four regional offices in the continental United States will all be retained, but at reduced staff levels. Of course, as our field modernization and restructuring program approaches completion, we will continue to look at functions that support the field offices, including

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NWS Warns of Snowball Series

Chilly Temps Can't Help Tribe Beat Florida

Snow fell during the coldest ever game in World Series history. Bats were breaking like toothpicks, players wore turtlenecks and had gloves on their throwing hands, and the preferred sports beverage was hot coffee.

At least they can say they were warned—The National Weather Service had issued snow and cold weather advisories even as the Florida Marlins and Cleveland Indians were leaving for Jacobs Field after their opening games in sunny Miami.

"Maybe we should replace the seventh inning stretch with the seventh inning Iditarod," joked one of the announcers as low temperatures set a World Series record at 38 degrees at Jacobs Field (18 with the wind chill). In the stands, fans who heeded the weather service warnings were dressed in winter attire and the weather's effect on the play was a constant source of speculation.

According to Bill Comeaux, meteorologist in charge of the weather service's Cleveland office, the baseball world can thank a mass of cold air pushing down from Canada for buffeting the Fall Classic with winter-like conditions.

"We knew almost five days ahead of time the cold front would push through our area, and with Jacobs Field close to Lake Erie, there was a strong potential for Lake Effect Snow on game day," Comeaux said.

"Our forecasts and advisories were widely distributed and it looked like everyone—from the players to the fans—was prepared."

The chilly third game, taken by the Marlins 14-11, was followed by the fourth game, which featured a snow shower and a sloppy Indians win, 10-3.

But not even the weather service's NEXRAD system could have forecast the nail- biting excitement of the series' seventh and last game. In the end, it was the five-year-old hot weather Marlins over the tradition-rich but snow-bound Tribe, four games to three in 80 degree heat and 88 percent humidity at game time.

—Bob Chartuk

NOAA to Lead Year of the Ocean Issues

The United States, with NOAA's leadership, plans to actively participate in the United Nations-designated Year of the Ocean. The U.S. will use this opportunity to promote public awareness of the value of the ocean to the national welfare and to initiate actions to ensure that the government does all it can—and should—to promote the exploration, sustainable use, and conservation of the sea.

The interagency Ocean Principals Group (OPG), under the chairmanship of the NOAA Administrator, has been meeting since April 1997 to define issues for attention and approaches. An OPG subgroup is working to articulate those issues, describing what is working well and what is not working well in various topic areas. The Heinz Center for Science, Economics, and the Environment has joined with NOAA to seek out the oceans' "stakeholders" from government, private industry, non-government organizations, and the academic sector to pursue a national set of actions. A high-level conference may be held in 1998.

NOAA's Office of Public Affairs and its partners, in coordination with public affairs offices from other Federal agencies, will launch a public outreach campaign that can be used by any individual or organization interested in undertaking YOTO activities.

The outreach campaign will include:

- A logo for groups wishing to show support for or get involved in the Year of the Ocean with the tag line "Year of the Ocean, Get Into It."
- A list of key themes and messages.
- Posters or series of artwork.
- Brochures.
- A YOTO education kit with curriculum and teacher training manual.
- Public service announcements.
- A toll-free number to call for more information on what can be done to ensure our oceans are a sustainable resource.

YOTO promotional activities are scheduled to run from January through December 1998..

For more information, check the Year of the Ocean web site, *http://www.noaa.gov/yoto98*.

This is the first of a series of articles on NOAA's involvement in The Year of the Ocean.

United Parcel Service Planes Deliver Weather Data

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data collection points are also too spread out to pick up on the small storms that suddenly develop. Images and data from satellite sensors can provide additional information, but these systems are designed to observe horizontal rather than vertical patterns.

According to Rex Fleming of NOAA's Environmental Research Laboratories in Boulder, Colo., water vapor is extremely difficult to forecast. "We just don't have a mechanism to collect water vapor data frequently enough. Putting these probes on UPS, and eventually other planes, will help us enormously by providing an easy tool to collect data frequently from many parts of the country. This information will then be included in our weather and climate models," he said.

Water vapor plays an important role in storms, particularly the small storms that develop quickly and play havoc with airline schedules and safety. The Federal Aviation Administration (FAA) suggests that these storms can cost the aviation industry more than $1 billion per year. A major factor in these storms is water vapor. Fleming says on the average, more water, in the form of water vapor and clouds, flows over the dry state of Arizona than flows down the Mississippi River. Including more measurements of water vapor in weather forecast models can help forecasters produce a more accurate and precise forecast.

The instrument collecting this data, a Water Vapor Sensing System probe, was built by B. F. Goodrich Rosemount Aerospace, Inc., a subcontractor to Lockheed Martin. It will be mounted on the left side of the UPS B-757, while a compartment containing the electronics will be housed under the skin of the aircraft. There is an existing temperature probe on the right side of the plane, with future plans to combine these instruments into one probe. The WVSS data will eventually be added to the radars and automated surface systems in air terminals, contributing to a reduction in the frequency and severity of flight delays and improving the safety of air travel.

—Barbara McGehan

Focus On...

Ocean Disaster Responses

NOAA Has Key Role In Oil Spill Drill

Two oil tankers collide at the mouth of the Delaware River and a spill rivaling the Exxon *Valdez* begins. To complicate matters, a barge carrying oil and a fishing boat collide further up the coast and the barge is leaking—badly.

Two days later, the ships have vanished, and there's no trace of the oil.

An environmental catastrophe of epic proportion? The story line for a special two-hour episode of The X Files? It could be, if it wasn't a carefully planned oil spill response exercise staged by the U. S. Coast Guard, with NOAA personnel in key roles.

Oil spills, response plans, and exercises are nothing new, but following the 1989 Exxon *Valdez* spill in Alaska, Congress mandated that response plans for large spills not only be in place, but also be practiced by the entire oil spill response community. So, as 100,000 barrels of "spilled" oil threatened the Atlantic coast, more than 200 "players" from Federal, state, and local governments, along with oil and shipping industry representatives, cleanup contractors, environmental groups, and others, acted out their roles at the Coast Guard's Marine Safety Office in Philadelphia.

Central to an exercise—and a real spill—is tracking and predicting the movement of the waterborne oil, and estimating what environmental impacts will result. This is where NOAA, with its expertise in ocean currents, weather, environmental science, and computer technology, shows its stuff.

Under the National Oil and Hazardous Substances Contingency Plan, NOAA provides Scientific Support Coordinators (SSCs) as advisors to the Federal on-scene officials during spills. Using sophisticated computer models, technical expertise, and years of experience, the NOAA coordinators help key decision makers plan their response, and lay the foundation for assessing any damage to the environment and natural resources.

During drills like the one in Philadelphia, the scientific coordinators and NOAA's Seattle-based Hazardous Materials Response and Assessment Division use the same response tools and knowledge to help exercise planners develop realistic and challenging scenarios to put local and regional contingency plans to the test. The importance of NOAA spill trajectory forecasts and other science support soon became clear as cleanup managers anxiously awaited NOAA charts and forecasts showing where and when the oil would make landfall and what wildlife might be

NOAA personnel played a key role in a recent oil spill exercise sponsored by the U.S. Coast Guard in Philadelphia. Reviewing projected landfall possibilities are, from left, scientific support coordinator Ed Levine, NWS Public Affairs specialist Bob Chartuk, HAZMAT division representative Jerry Galt, and NOS Public Affairs specialist Dan Dewell.

in its path. The forecasts help guide cleanup teams on the beach, ships attempting to contain the spills, and the response of many varied governmental and community organizations.

The Coast Guard team that organized and conducted the Philadelphia drill is based at the service's National Strike Force headquarters in Elizabeth City, N.C. They kept exercise role players on their toes by also producing a continuous flow of information about the simulated spills.

According to Dr. Jerry Galt, a physical oceanographer with NOAA's HAZMAT division, "Scientific support is really an interdisciplinary, integration process and each of us must be aware that our technical expertise is only useful in the context of a chain of information that goes into the response team's decision process. Our trajectories indicate where the oil might go, but the choice of response options also depends on who gets hit and how it hurts."

Galt added: "On the front end we are partners with the National Weather Service forecast offices and data from Coast Survey programs. As the information gets packaged we work with National Marine Fisheries information and NOAA's trustee concerns. NOAA can bring a lot of technical and intellectual firepower

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Volunteer divers aided in the recovery of John Denver's plane after it crashed in the Monterey Bany sanctuary.

Sanctuary Site of Denver Crash, Recovery

On Sunday afternoon on October 13, Kip Evans was weeding in his garden when he heard "a loud pop."

Evans, education specialist for the Monterey Bay National Marine Sanctuary, didn't realize he was sharing in the final moments of singer John Denver's life, whose plane crashed within sanctuary waters off Point Pinos.

Minutes later, Evan's beeper went off, alerting him to join fellow Pacific Grove Ocean Rescue volunteers. Evans has trained many hours as a volunteer emergency diver, and within minutes he was at the crash site, suited up, and ready to take part in search and rescue operations.

For two grueling days, Acting Manager Joanne Flanders, Environmental Scientist Patrick Cotter, Enforcement Coordinator Scott Kathey, and Evans assisted the volunteer rescue group in recovering Denver's body and the plane wreckage. The sanctuary vessel, Shark Cat, was used as the platform for recovery operations.

Eventually the plane's engine was brought to shore and turned over to the National Transportation Safety Board (NTSB) as was underwater video footage.

After the recovery efforts were completed, Scott Kathey remarked at how closely the community worked together with one another and the Sanctuary during this tragedy.

—Nancy O'Donnell

"Very Proud": President Clinton

Weathercasters Reign at Climate Conference

The scene outside the NOAA Science Center in Silver Spring looked like a televised urban square dance last month. Climate experts from NOAA and the scientific community marched in place as television weathercasters from across the Nation promenaded through the courtyard with videotapes and microphones in hand to capture interviews. The pace was fast and the experts' dance cards were full. More than 100 climate interviews were conducted in about 90 minutes.

NBC's Joe Witte (right) interviews Thomas Karl, senior scientist at NOAA's National Climatic Data Center at the Climate conference held last month at the Silver Spring campus.

In a White House briefing later that day with President Clinton and Vice President Gore, NOAA and the National Weather Service came in for praise.

"I'm very proud of them and what they have done," the President said. "In the past decade alone, they have doubled the amount of warning time we have to prepare for tornadoes, quadrupled the time for flash floods. And those are just two of the ways that our people here, with NOAA and the National Weather Service, and their research and technology have improved our nation's safety and planning."

Berrien Moore, director of the Institute for the Study of Earth, Oceans and Space at the University of New Hampshire, was a popular interview subject at the conference.

The interview session culminated the morning portion of a NOAA forum on climate change that included briefings from President Clinton and Vice President Gore at the White House. NOAA Administrator Dr. D. James Baker chaired the Silver Spring session. Morning presenters were Dr. Daniel Albritton, director of NOAA's Aeronomy Laboratory; Thomas Karl, senior scientist at NOAA's National Climatic Data Center; Dr. Ants Leetmaa, director of NOAA's Climate Prediction Center; and Prof. William Easterling, professor at Pennsylvania State University's Geography and System Science Department.

—Randee Exler

18 Honored for Coastal & Ocean Programs

This year's Walter B. Jones Memorial and NOAA Excellence Awards for Coastal and Ocean Resource Management went to 18 groups and individuals dedicated to excellence in unique coastal and ocean resource management programs, as well as in public and private endeavors to conserve America's coasts.

"Estuarine and coastal wetlands are decreasing nationwide by an average of 31 square miles per year," said Jeffrey R. Benoit, director of NOAA's Office of Ocean and Coastal Resource Management. "Marine habitats are disappearing at an alarming rate, underscoring the fact that the nation's ocean and coastal resources are at serious risk. The award recipients are the folks who are helping to change the quality of our oceans and coasts."

This year's winners:

Cynthia Zipf (center) was given the Coastal Steward of the Year award by Rep. Walter Jones Jr. (left; D-NC), son of the congressman for whom the awards are named, and NOAA Administrator D. James Baker (right).

Coastal Steward of the Year
Cynthia A. Zipf, executive director of Clean Ocean Action, Sandy Hook Highlands, New Jersey

Excellence in Local Government:
Kenai Peninsula Borough, Soldotna, Alaska

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Oil Spill Teams

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to bear on these problems and it is the SSC's job to make certain that it happens."

Keeping the public informed during a major spill is an important and sometimes difficult job. The crisis atmosphere which often surrounds the initial stages of an oil spill can lead to rumor, speculation and mistakes in reporting. The demand for information from the media and public can even interfere with response operations. That's why response plans call for a Joint Information Center (JIC) to be a part of the overall response operation. A JIC serves as an official, centralized location to report accurate information to the news media and the public.

—Dan Dewell

NOAA to Be Featured at Climate Meeting

U.S. government negotiators at the Climate Change conference in Kyoto, Japan next month will rely heavily on information from NOAA scientists when they debate world policies on global warming.

Work done by NOAA's Environmental Research Laboratories in Boulder, Colo., NOAA's National Climatic Data Center in Asheville, N.C., NOAA's Office of Global Programs and NOAA's Climate Prediction Center in Camp Springs, Md., will figure heavily in the negotiators' discussions. Tom Karl of NOAA's National Climatic Data Center indicated that NOAA's climate models and its data on changes in greenhouse gases and global weather and climate patterns were used as the basis for much of the work completed by the Intergovernmental Panel on Climate Change.

Many of NOAA's scientists participated in developing this international assessment which negotiators are using as basis for the current state of scientific knowledge on the topic.

The Kyoto conference, officially known as the third Conference of Parties of the United Nations Framework Convention on Climate Change, will bring together policymakers from more than 160 countries. The meeting is intended to result in a treaty to limit carbon emissions in industrialized countries beyond the year 2000.

More information on the conference can be found on the Internet at *http://www.unfccc.de/index.html.*

Daley: NWS Has 'Hard Working Professionals'

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the regional offices, to ensure they effectively complement the new field operation.

- I will seek the support of the Congress to fund the Weather Service at the levels recommended by General Kelly for FY 1998 within the allocation for NOAA.
- And I will create a new position within the National Weather Service of Chief Financial Officer. That person will be responsible for executing much-needed management and budget reforms.

We at the Commerce Department remain committed to the modernization of the National Weather Service. By the time modernization is complete, we will have invested 4.5 billion dollars in new technology and in our employees. We need to give the American people the confidence that this is money well spent.

Let me emphasize one thing, which has been confirmed by General Kelly's report: The Weather Service staff in the field are hardworking professionals, who dedicate themselves every day to public health and safety and to supporting American industry. The problems that this report has uncovered are in the headquarters, and that is where we will address them.

Again, let me thank General Kelly for all he's done. I believe his recommendations offer us a solid road map for the future.

Looking toward that future, I am confident that the National Weather Service will remain the best of its kind in the world—state-of-the-art, more accurate and reliable than ever before, protecting life and property, and helping us meet the economic challenges of the 21st century.

I have sent the following e-mail to all National Weather Service employees, and I'd like to share it with you:

I am writing to you and all the other employees of the Weather Service in the wake of General Kelly's report. First, I want to thank you for your hard work, dedication and commitment. The National Weather Service is the best in the world because of people like you. Next, I want to thank General Kelly for an outstanding report. It offers us a solid road map for the future. Finally, I want to assure you of my strong support for the Weather Service. I am committed to keeping the National Weather Service the best in the world. I know that together we'll do just that.

(General Kelly's report can be read on the Internet at http://www.noaa.gov/public-affairs.)

Walter B. Jones Awards

18 Honored for Coastal, Ocean Work

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Town of Rye, New Hampshire;
Natural Resources Department of the Bad River Band of Lake Superior Chippewas, Odanah, Wisconsin;
Manatee County Government Planning Department, Bradenton, Florida;
Volusia County, DeLand, Florida

Volunteer of the Year
Susan Jordan, League for Coastal Protection, Manhattan Beach, California

Excellence in Coastal and Marine Graduate Study
DoSoo Jang, University of Delaware, Newark, Delaware;
Lillian Ferguson, University of Washington, Seattle, Washington;
Kristopher A. Pickler, Duke University, Durham, North Carolina;
John Field, University of Washington, Seattle, Washington

Excellence in Promoting Cultural and Ethnic Diversity
Pat Flanagan, San Diego Museum of Natural History, Imperial Beach, California

Non-Governmental Organization of the Year
Friends of the Bay, Oyster Bay, New York

Excellence in Coastal Zone Management
Jan Strnad, California Coastal Commission, Corralitos, California

Excellence in Estuarine Research Reserve Management
Michael Graybill, South Slough National Estuarine Research Reserve, Charleston, Oregon

Excellence in Marine Sanctuary Management
Edward Ueber, Gulf of the Farallones National Marine Sanctuary , San Francisco, California

Excellence in Business Leadership
BP Exploration Inc., Gulf of Mexico (BPX), Houston, Texas

—Molly Bell

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